

# THE COPPER ERA

AND MORENCI LEADER

The Oldest Copper Pro-  
ducing District in the  
State of Arizona.

VOLUME XXIV.

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## NEW CONCENTRATOR UNIT AT NO. 6 IS NOW COMPLETE

The work done in No. 6 Concentrator at Morenci during the past month consisted in installing a new Concentrator Unit capable of treating an additional 700 tons of ore daily under the conditions of the new fine grinding and two-stage flotation flow sheet which was developed in the Experimental Mill at Morenci.

No additional coarse grinding equipment for reducing the ore from Run-of-Mine size to six mesh size has been installed as machines already in place have more than sufficient capacity for the additional work required.

The work necessary for taking care of the additional 700 tons started with the installation of grinding equipment for reducing the ore from six mesh to a minus 48 mesh size, at which latter size the treatment of the ore by the flotation process is started. For this purpose one of the two large Marcy Ball Mills has been removed from the Clifton Concentrator and set up in No. 6 Concentrator. On account of its exceedingly heavy weight the removal, transportation and setting up of the mill proved to be the most arduous task of the reconstruction work.

Installed along side the mill is a Dorr rake classifier the duty of which is to return to the mill all ore which has not been ground to the required degree of fineness during its passage through the mill. The classifier also discharges to the flotation system over a wire overflow all material which is already ground fine enough. The above installation is for the purpose as stated, of reducing the ore to a size which will allow it all to pass through a screen having 48 openings to the linear inch, known as 48 mesh.

Before the ore receives final treatment it is found necessary to reduce its size to a minus 65 mesh size and another Ball Mill and Classifier installation is required to accomplish this work. Ball Mills of sufficient capacity to accomplish this work were already in place but for the overflowing of a product finer than 65 mesh, a special form of classifier is necessary to work in conjunction with the fine grinding Ball Mills. This special classifier was constructed in the form of a shallow wooden tank 14 feet in diameter and 3 feet deep. The tank is equipped with a central shaft which reaches almost to the bottom of the tank and which carries four radial arms equipped with rakes at its lower end.

These rakes being revolved, carry settled coarse material to the center of the bottom of the tank where it is removed through a plug discharge opening and pumped back to the mill for further grinding. The ore which is already ground fine enough overflows ten perimeters of the tank, is collected in a launder which encircles the tank and is then sent to the final flotation system for treatment.

The installation of a Dorr Rake Classifier for unwatering the feed to the Marcy Ball Mill before mentioned, was also necessary, better grinding results being secured when the feed to the Ball Mills contains a minimum of water. A large number of launders have been installed through which the ore will be transported from one machine to the following one and a considerable amount of work was performed in clearing up old equipment to make room for the new.

Since a large part of the flotation process equipment has been idle for the past eighteen months it was found necessary to do a great deal of renovating in this department, going over the tanks and furnishing them with new canvass blankets. Two direct connective Krogh Sand Pumps have been installed to handle flotation tailing material and a Wilfley Pump to handle the plug discharge of the tank classifier is to be installed.

The 130 foot diameter Dorr thickening tank used for recovering tailing water has also been repaired as it will be necessary to put this tank into commission again when the tonnage is increased. No very heavy concrete work has been needed, the heaviest work of this kind being the foundation piers for the Marcy Ball Mill. The work will be completed by November 30th with the exception of a few details which are awaiting supplies as yet undelivered.

### SHERIFF ANNOUNCES DEPUTIES

Sheriff-elect W. T. Witt this week made announcement of his appointees as deputy sheriffs, to take effect on January 1, to be George Martin, of Clifton, Under Sheriff; Bud Smith, of Clifton, Jailor; R. T. Scott, Deputy Sheriff at Morenci. For the present these will constitute the sheriff's force in this county. Under present conditions there will be no deputy sheriffs at Metcalf or Duncan and the newly elected sheriff states that he has effected a working agreement between the various constables in the precincts and the sheriff's office which will not make any additional appointments necessary at this time.

## MEMORIAL SERVICE BY ELKS LODGE NEXT SUNDAY

Clifton Lodge 1174, Benevolent and Protective Order of Elks, will hold their beautiful and impressive Memorial Services at the Auditorium on Sunday afternoon, December 3rd at 2:30 p. m.

This is an annual ritualistic service held by all Elk Lodges throughout the United States on this date in commemoration of absent brothers who have passed to the Great Beyond. The services are public and a cordial invitation is extended to all. The program for the services, as arranged by the committee, for next Sunday afternoon is as follows:

**Program**  
Introductory March ..... Selected  
MISS MARGARET NEWHOUSE  
Opening Ceremonies ..... Lodge  
Solo—"Face to Face" ..... Johnson  
MRS. PETER RILEY  
Invocation ..... By Chaplain  
R. J. COLEMAN  
Piano Solo—"Notturmo" Mendelssohn  
MISS MARGARET NEWHOUSE  
Duet—"My Faith Looks up to Thee"  
By Norris  
MRS. GEORGE MARTIN  
MISS ANNA PRIEST  
Address ..... D. W. Ling  
Violin Solo—"Elegie" ..... Ernst  
MR. McHENRY MOSIER  
Solo—"Over the Stars There is Rest"  
By Abt  
MR. C. E. HULL  
Solo ..... Selected  
MRS. W. H. NEILL  
Closing Ceremonies ..... Lodge  
Benediction ..... By Chaplain  
R. J. COLEMAN  
MRS. DOLORES B. SHIRK  
Accompanist  
Auld Lang Syne  
Great Ruler of the Universe  
All-seeing and benign  
Look down upon and bless our work  
And be all glory Thine.  
Oh, hear our prayers for our honored  
(Dead)  
While bearing in our minds  
The memories engraved on our hearts,  
For Auld Lang Syne.

## Notman Leaves Phelps Dodge; Hays to Be New Mine Head

DOUGLAS, Nov. 25.—Resignation of Arthur Notman as mine superintendent of Phelps Dodge corporation to take effect on January 1, and the appointment of F. H. Hayes, of P. G. Beckett's office to succeed him, was announced last night by the general office of the Phelps Dodge corporation in Bisbee.

Mr. Notman will leave Bisbee about January 15 for New York, where he will become associated with James Finlay, nationally known geologist and consulting engineer.

The retiring superintendent has been in the employ of the Phelps Dodge corporation for 14 years, all of that time having been spent with the Copper Queen branch. He entered the service as geologist and assisted in the first comprehensive geological survey of the Copper Queen properties in the Warren district. In 1913 he went to Globe, where he directed a similar survey of the Old Dominion properties, returning to Bisbee a year later to assume charge of the efficiency department of the Copper Queen. This office Mr. Notman held until 1917, when he was appointed assistant to Gerald Sherman, then mine superintendent, and in 1918, when Mr. Sherman was appointed consulting engineer with headquarters at Douglas, Mr. Notman succeeded his chief as mine superintendent, which office he has held until the present time.

Mr. Hayes the successor of Mr. Notman, first entered the service of the Phelps Dodge corporation in 1909, and worked underground in the Morenci properties of the corporation. Later he was appointed chief geologist for the Morenci properties, and held this position until 1915, when he resigned to accompany the 158th infantry to the border under the command of Col. A. M. Tutill, as regimental adjutant. Later, when Colonel Tutill was promoted to be a brigadier general, he had Mr. Hayes assigned to the 79th infantry brigade as brigade adjutant, with the rank of major. Major Hayes served with the 79th at Camp Kearney and accompanied the organization overseas, where he was transferred to the army general staff college at Langres, later being transferred to Chaumont and Douges. Major Hayes served in the Argonne, and later commanded an infantry battalion of the 25th division, being transferred from this command to the fourth division of the army of occupation, with the rank of lieutenant colonel. In May, 1919, Colonel Hayes was discharged from the army and returned to his former duties at Morenci. In April 1920, he came to Bisbee, where he has been connected with the office of P. G. Beckett, general manager of the Phelps Dodge corporation.

## CHRISTMAS PRESENT PROMISED TO THE STARGO OWNERS

A Christmas present is promised to the stockholders of the Stargo Mines Inc., by the directors.

The present will take the shape of a new cyanide mill of seventy-five ton capacity, which has been under construction on the Stargo property near Morenci for the past six months, and which will make its initial trial run on or about December 15th.

Mr. Benj. Getzoff, of Bernardsville, New Jersey, President of the Stargo Mines Inc., arrived at Morenci last week and will remain until after the initial run. He will be joined here about the 15th inst. by Morris Kullman, treasurer of the company and Mr. Stern, vice-president.

The cyanide mill was designed by the General Engineering Co., of Salt Lake City, Utah, of which J. M. Callow is President, and the actual construction has been in charge of Mr. Bornsen, mechanical engineer.

It had been expected to have the mill completed earlier but the usual delay in the arrival of machinery has retarded its completion, however, Mr. Bornsen announced this week that he would be ready for the initial run on or before the 15th inst.

The Stargo Mines Inc., is a corporation organized under the laws of Arizona with a capitalization of \$500,000.00 and is now controlled by Getzoff, Kullman, Stern, et al., of New York and New Jersey, although a large number of Arizonians are stockholders in the company. Ray Ferguson, formerly of Nogales and Phoenix is local manager.

During construction of the mill underground development in the mines has been in progress with gratifying results. The average grade of the ore to be milled will run between \$12.00 and \$15.00 per ton.

### CONCLUDES VISIT TO RELATIVES

Miss Nora Butler, who has been on a visit to Dr. and Mrs. L. A. W. Burch returned to her home in Trinidad this week.

## Clifton Builds Good Roads; Flouts Talk of Hard Times

G. A. Martin, managing editor of The El Paso Herald, accompanied by H. H. Friss, manager of the circulation department, with three assistants, chugged into Clifton on Tuesday of last week aboard one of Henry's best, and apparently as if by magic, within a few minutes a majority of the population of Clifton knew the stars of the Herald staff were in town.

With unerring instinct Martin headed for the sources of news while Friss deployed his circulation skirmishers. For the next two days they were in and out of Clifton, and all over the district. As a result of their visit the Herald's circulation list in the district has been increased in a gratifying manner and the issue of the Herald of November 23rd carried a splendid account of local activity in the district from which we take the following:

If you want an example in optimism, you can get it in Clifton.

These Clifton people are the sort who tell the world they are on the map—and spend money when no money is coming in, just to prove that they know they are right and believe in themselves.

With the copper mines partially shut down and people all around talking about hard times, the Clifton people have never admitted that they were anything but very much alive and they just kept on doing things as if the mines were running full blast and there were no vacant stores within a thousand miles of them.

Adversity Met His Match  
"Old Adversity may knock a few blue spots on us," said Peter Riley, news dealer and leading citizen, "but he can't put us out." And he hasn't. Through almost two years of a depressed copper market, the people of Clifton clung to the belief that people were going to use up the surplus supply some day and need more. "And Clifton has the goods when the world wants it," they told themselves.

Just to keep up heart, they built roads while the rest of the world talked hard times and wondered when copper mining would "come back."

Just to show New Mexico that their hearts were right, they invested between \$30,000 and \$40,000 in a road towards Mule Creek, to connect with Silver City and Mogollon and Clifton, and cut 40 miles from the distance to El Paso. The state of Arizona put another \$10,000 into the project. That is what a little over 17 miles of road cost and this illustrates the expensive task it is to build roads in this part of Arizona and how enthusiastic these people must be to spend

## HUNTING PARTY GETS 5 MOUNTAIN LIONS IN THREE DAYS

Cleve Miller, Government hunter and trapper on the Apache National Forest, accompanied by A. E. Daniels, superintendent of the Navajo Indian Reservation, and M. E. Musgrave, of Phoenix, are entitled to the blue ribbon as lion hunters, when on a three day's hunt in the Apache National Forest, approximately sixty miles north of Clifton they killed five mountain lions, three full grown animals, and two cubs almost equal in size to the others.

The hunt was arranged by Mr. Musgrave co-operating with Cleve Miller. Governor Campbell was to have been a member of the party but was detained on account of official business. Messrs Musgrave and Daniels arrived in Clifton by auto on Wednesday of last week and proceeded over the Clifton-Springerville Highway to the ranch of Cleve Miller on Pine Flat. Here the party of three, accompanied by a cowboy, secured horses and pack animals and coming across to the Rose Peak road camp struck north through the snow into the heart of the forest.

The hunt was started on Friday and at noon Tuesday the hunters were back at the ranch of Mr. Miller with five lions as trophies. Loading the five carcasses into the back end of the automobile Mr. Musgrave and Mr. Daniels drove to Clifton and left overland for Phoenix Wednesday morning where the lions were delivered at the office of the State Game Warden.

The hunt was a part of the day's work for Cleve Miller and his pack of dogs, but five lions in three days we believe breaks the record even for this veteran hunter and trapper. An unusual feature of the hunt was that the first day out the dogs picked up the trail of three lions and treed all three of them, dividing the work between them which is considered a most remarkable feat.

Mr. Miller is fast earning a national reputation as a hunter of predatory animals in the national forests and his pack of hounds are becoming celebrated all over the southwest.

### such sums in a period of depression.

**Mule Creek Road Finished**  
In July 1921, the people of New Mexico met with the people of Arizona at Silver City and proposed that Arizona would construct a road to the western New Mexico line, New Mexico would guarantee a good road from Silver City to Arizona.

The Arizonians have this week completed their section of the road and the grading gang has moved out. New Mexico promises to have the New Mexico end of the line through Mule Creek and Cliff completed by Christmas.

Then El Pasoans can drive over here by way of Deming and Silver City and do it easily in a day.

The Arizona road for Silver City leaves the Clifton-Duncan road nine miles south of Clifton, and it was heavy work every foot of the way, else it could not have cost \$140,000 and more for 17 miles. But all road work over here is heavy work, yet these Clifton people think nothing of it.

The Mule Creek road was just a little starter in their program of building roads. They wanted a road for tourists to come in here from the Springerville and the northern Arizona country—and a road for people to get out north from this region—so they started the Springerville road.

### Some Real Road Work

Talk about expensive road building. You don't know anything about it until you have gone over the completed portion of the Clifton-Springerville road.

To get out of Chase Creek canyon, a few miles north of Clifton, it was necessary to build a road at three levels alongside the same mountain but they did it.

They circle the upper end of the canyon and come back towards Clifton on the first level, then turn around north again at an available spot and run in the other direction. Each piece of road climbs higher and higher the top section 100 feet above the one in the bottom of the canyon. To gain half a mile in distance, the road is two and a half miles in length.

### Beautiful Scenery

The road climbs out through some splendid scenery reminding one at first of the beautiful Arroyo Seco, summer camping home of millionaires near Los Angeles, then taking on the appearance of the Mountain Park country as it climbs to an altitude of 7000 feet at Granville Pass, 14 miles north of Clifton, then much like Cloudcroft as it climbs through the spruce and oak and sycamore above the making aspens into the pines at a height of 8000 feet at

(Continued on Page 6.)

## GREENLEE COUNTY IS ORGANIZED FOR BOY SCOUTS

Dr. L. A. W. Burch, chairman of the committee having in charge the drive for Greenlee county's quota of the funds necessary to include this county in a Boy Scout Council, consisting of Greenlee, Graham and Gila, this week was able to send a telegram to O. A. Alderson, at Globe, Scout Executive for this district, that the full amount of \$5,000.00 had been subscribed.

The Boy Scout activity, which has been revived in Greenlee county, was the direct result of a recent visit of C. J. Carlson, field director of the Boy Scouts for the western states. During his visit, after consulting with interested parties, it was decided that Greenlee should join with Graham and Gila in the formation of a Council and to divide the expense of a Scout-Executive among them.

The committee who assisted in raising Greenlee's quota for this purpose, was composed of Dr. L. A. W. Burch, chairman; P. Riley, W. R. Davis, J. O. Ambler, C. E. Hull and W. N. Moore, representing Clifton and Morenci.

At a future date a committee of seven will be named to represent Greenlee county in the Council of the three counties, and at that time Duncan and Metcalf will also have representation as the movement will include the entire county.

With the organization of Greenlee, Graham and Gila counties into one Council, all of the counties in Arizona are now organized and Arizona holds first place of all the states in being one hundred per cent organized.

A Boy Scout troop is already in existence at Morenci, which will now probably be divided into two troops, and it is the expectation that there will be two troops in Clifton and one at Duncan.

O. A. Anderson, scout executive, will devote part of his time each month in Greenlee county directing the work of the local scout masters and instructing the boy scouts.

## Southwestern Medical Association To Meet In El Paso

EL PASO, Texas, Nov. 22.—Visiting doctors attending the Southwestern Medical Association meeting in El Paso, Dec. 7, 8 and 9, will have charge of the program. No El Paso doctor will read a paper at this convention as it is the desire of the local doctors that these be in charge of the outside doctors. El Paso doctors will participate in the discussions of these papers.

Clinics equal to those held here during the Texas State Medical Association meeting will be held in the hospitals during the meeting and subjects of special interest to the doctors of the Southwest will be discussed. The program committee is making an effort to get a physician or surgeon of national reputation to attend the meeting and deliver an address.

In addition to the serious part of the program, the entertainment committee is arranging an attractive program of entertainment for the visiting doctors and their wives. The executive committee is making an effort to have every married doctor bring his wife to the convention and a special committee of ladies is now arranging an elaborate program of teas, receptions and other entertainment for them during the convention. Hotel reservations are now being made and the hotel committee is sending a questionnaire to every doctor in the Southwest in order to be sure to have rooms reserved for them.

### HIGHWAY CHIEF CLERK HERE

W. R. (Bill) Ingham, chief clerk of the State Highway Department, was a business visitor in Clifton last Saturday coming over in connection with the completion of the Mule Creek Interstate Highway link between Greenlee county and Grant county.

## DOUGLAS PASCOE MISSING IN MOUNTAINS

Douglas Pascoe, son of Mr. and Mrs. C. F. Pascoe, a young man about twenty two years of age, is reported lost in the mountains in the vicinity of the Juniper ranch in the Mule Creek district, as the Era goes to press.

In company with Sidney Bills, Douglas Pascoe started on a hunting trip in that section last Wednesday intending to return Wednesday night. Becoming alarmed Thursday morning Mr. Pascoe reported the matter to the sheriff's office and since that time a posse has been searching the mountains in that vicinity and up to Friday noon no trace of the missing boy had been found.

Sidney Bills made his way back to the Mule Creek road Thursday morning after spending Wednesday night

## COPPER INDUSTRY TURNS ATTENTION TO DAM PROJECTIONS

By CHARLES F. WILLIS  
Editor Arizona Mining Journal  
Interest in the copper industry is centered around two things, the action of the council of the Salt River Valley Water Users' association relative to the construction of the Mormon Flats Dam and also the progress of the Colorado River Compact and its relation to the construction of the Diamond Creek Dam. Both of these are enormously large power projects on which the money for construction is available and the progress of the mining industry largely hinges upon the development of cheaper power.

Copper Production Indicated  
The past week has seen some progress in the increasing or plans for increasing the copper production, although the scarcity of common labor in many camps has held back production. Morenci has planned to get under way as quickly as men can be obtained, but it is reported that considerable difficulty in this is being encountered in spite of the good living and working conditions of the Morenci camp.

A mill of 500-ton capacity is to be installed at an early date at the property of the Young Mines company, of Youngsberg, Arizona, and production is expected to start not later than next March, according to Geo. U. Young, president and general manager of the company. Considerable development work has been completed at the property and a large amount of new machinery installed, as well as additional surface equipment and buildings.

To Install Electric Power Plant  
The Chispa Mining company, owner of the Las Chispa mine in the Arizona district, Sonora, Mexico, has completed plans for the construction of a central electric power plant at Nacozari, which it is estimated will cost \$300,000, according to Antonio Pedrazini, general manager of the company. In connection with the construction of the power plant a high power transmission line will be built west to the Chispa camp, a distance of 40 miles.

A firmer tendency is reported in the copper market and some sellers are inclined to quote 14 cents, although 13 1/2 cents continues to be the prevailing level. However, some authorities are of the opinion that prices will be advanced slightly in the near future.

Export inquiries also are good and a number of fair sized orders have been placed in this country with individual sellers in addition to the business which went through the Copper Export association.

Domestic consumers have shown increased interest in the market for the red metal. Orders have been reported larger than recently, and some fair inquiries were in the market from manufacturing interests to take care of their future requirements. Several inquiries covered monthly shipments up to the end of next March. The fact that manufacturers are showing indications of placing orders is looked upon by some authorities as evidence of increased industrial activity. It is pointed out that the consumers of copper are not now speculating in metal, and place orders only for their actual requirements as they can see them ahead.

There is still good buying for the account of Germany. Most of the transactions with German consumers are made on a basis of New York harbor, and although it is stated by some sellers that 13 1/2 cents per pound f. o. b. New York is the general quotation, there is a well defined report that some business was done during the past week at 13 7/8 per pound, New York. The fact that Germany is still paying for its copper in American dollars is a matter of considerable comment outside the trade.

### BACK FROM PHOENIX

Elihu Swanson, who assisted in moving the highway equipment which had been used on the Mule Creek highway construction, to headquarters at Phoenix, returned home on Friday last. John Webster, who also went to Phoenix with the equipment, has accepted a position with the State Highway Department at Wickenburg.

searching for his companion. He states that as late as 6:30 Wednesday evening he received an answering signal shot from Pascoe but after that hour could hear nothing. Bills stated that he continued the search Wednesday night. At day light he made his way back to the Mule Creek road and was brought to town by a rancher.

A fresh posse left Clifton Friday afternoon and Sheriff Bradberry with a posse of five men is still continuing the search. Fear is entertained that Pascoe met with an accident. He was in his shirt sleeves at the time he became separated from his companion and it is feared that he may have perished from the cold during the snow storm in that vicinity Wednesday night and Thursday.